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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,511	06/02/2006	Masato Hatanaka	075834.00554	6571
33448	7590	03/04/2008	EXAMINER	
ROBERT J. DEPKE LEWIS T. STEADMAN ROCKEY, DEPKE & LYONS, LLC SUITE 5450 SEARS TOWER CHICAGO, IL 60606-6306			CRANSON JR, JAMES W	
			ART UNIT	PAPER NUMBER
			2875	
			MAIL DATE	DELIVERY MODE
			03/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/536,511	<b>Applicant(s)</b> HATANAKA ET AL.	
	<b>Examiner</b> James W. Cranson	<b>Art Unit</b> 2875	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4,6 and 7 is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/24/08,9/8/06,5/25/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by US 7,320,531 B2 to West et al.

West discloses a multi-colored LED array as light source of the backlight of a liquid crystal display apparatus that emits light in first, second and third primary colors, color mixing means that combines the colors to produce white light and each LED has a reflector.

Re claim 1:

A backlight apparatus (**32, column 3, line 25**) having at least an optical unit, the optical unit (**figure 3**) comprising: a first light source for emitting a first primary color light (column 3, lines 51-56, **“LEDs may be red, green and blue so that when mixed it appears white**) a second light source for emitting a second primary color light; a third light source for emitting a third primary color light; a first mirror (**46, column 3, lines 62-65,”light is totally reflected”**) surface body (**column 4, line 26,”spot reflectors 66**) for

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reflecting the first primary color light and/or transmitting other primary color light; a second mirror (46) surface body for reflecting the second primary color light and/or transmitting other primary color light; a third mirror (46) surface body for reflecting the third primary color light and/or transmitting other primary color light; and color mixing means (35) that mixes each of the color light transmitted through the first, second and third mirror surface bodies and emits white light (**column 4, lines 36-38,"reflectors 66 reduce brightness peaks over LEDs by causing red, green and blue light to be further mixed"**).

Re claim 5:

A liquid crystal display apparatus (**figures 1 and 3**) comprising:

a backlight apparatus (**32, column 3, line 25**) having at least an optical unit, the optical unit (**figure 3**) comprising: a first light source for emitting a first primary color light (**column 3, lines 51-56, "LEDs may be red, green and blue so that when mixed it appears white**) a second light source for emitting a second primary color light; a third light source for emitting a third primary color light; a first mirror (**46, column 3, lines 62-65,"light is totally reflected"**) surface body (**column 4, line 26,"spot reflectors 66**) for reflecting the first primary color light and/or transmitting other primary color light; a second mirror (46) surface body for reflecting the second primary color light and/or transmitting other primary color light; a third mirror (46) surface body for reflecting the third primary color light and/or transmitting other primary color light; and color mixing means (35) that mixes each of the color light transmitted through the first, second and third mirror surface bodies and emits white light (**column 4, lines 36-38,"reflectors 66 reduce brightness peaks over LEDs by causing red, green and blue light to be further mixed"**).

a liquid crystal display panel (30) for displaying an image using light from backlight device.

*Allowable Subject Matter*

Claims 2-4, 6 and 7 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 2 has a three primary color backlight device and adds a first dichroic film that reflects first primary color light, transmits second primary color light and a second dichroic film that reflects third primary color and transmits second primary color in an X-shape.

The combination of limitations claimed is not found, taught or suggested by the prior art.

Claim 3 has a backlight unit with a first mirror transmitting a first polarized wave, reflecting a second polarized wave, a second mirror transmitting a second polarized wave, reflected by first mirror, means for converting second reflected polarized into first polarized wave and polarized wave emitted is emitted aligned with first polarized wave.

The combination of limitations claimed is not found, taught or suggested by the prior art.

Claim 4, depends from claim 3, adds further limitations and is allowable for same reasons.

Claim 6 adds a liquid crystal display panel to the limitations of claim 2 and is allowable for the same reasons as claim 2.

Claim 7 adds a liquid crystal display apparatus to the limitations of claim 3 and is allowable for the same reasons as claim 3.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,079,841 to Suzuki, US 6,976,779 to Ohtsuki et al., US 6,181,391 to Okita et al. and US 5,758,828 to Steiner et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Cranson whose telephone number is 571-272-2368. The examiner can normally be reached on Mon-Fri 8:30A.M.- 5:00P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sandra L. O'Shea/  
Supervisory Patent Examiner, Art Unit  
2875

/J. W. C./  
Examiner, Art Unit 2875

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